EYE, EAR, NOSE AND THROAT

CHRONIC SUPPURATIVE OTITIS MEDIA

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Chronic suppurative otitis media is a chronic inflammation of the middle ear characterized by persistent and more or less constant discharge. This disease begins with an acute condition which is always of bacterial origin. Atmospheric changes, sudden chilling of the body, nephritis, etc., may contribute to the cause of the acute stage, but actual organisms are necessary.

The acute stage may result directly from the infection associated with the exanthematous diseases, typhoid, pnuemonia or tonsillitis, and by continuity of tissue through the Eustachian tube into the tympanic cavity, causing the inflammation.

The causes of the chronicity are both constitutional and local. Lowered vitality from any cause predisposes to the continuation of acute otitis media to the chronic stage of which tuberculosis plays an important part in both children and adults. Milligan reports that 20 per cent of hospital children under six years of age suffering from chronic otitis media purulenta are from tuberculosis. About 12 per cent of all chronic discharing ears in children are caused from scarlet fever.

While we all know the high percentage of complications of disease of the middle ear associated with measles, in which 70 to 90 per cent of the tympanic cavities contain a purulent exudate, no such percentage continues into the chronic form.

Some of the local causes of chronic form are: destruction of the mucous membrane in the tympanum during the acute stage, causing necrosis of bone, which is favored by virulent micro-organisms, insufficient drainage and late perforation. Andrews tells us that Nature's effort of healing is by granulation, but when there is irritation which Nature is unable to overcome, excessive granulations are produced, which are in themselves pathologic and keep up the discharge. Again the mastoid cells are in nearly all cases involved and many cases of chronic running ears are in reality chronic mastoid abscesses draining through the middle ear, and it is in these cases that the hearing may be good.

The skin will sometimes grow through the perforation in the drum membrane and exfoliate to such an extent that it will cause pressure and keep up the discharge. It is needless to say that diseased tonsils and adenoids not only predispose by lowering the vitality and by keeping the portals open for contagious diseases, but their very presence is sometimes the direct cause of the continuance of a running ear.

The symptoms of the acute stage are a feeling of fullness in the head, pain, more or less deafness, appearance of a red and bulging membrane, usually with fever and the presence of discharge later on.

During the chronic stage, however, the symptoms are constant discharge, foul odor and deafness or diminished hearing. Pain is rarely present except as complications become acute and the absence of pain is very often significant of tuberculosis. In fact all patients with chronic running ears should be examined very carefully for pulmonary tuberculosis.

The diagnosis is usually made by the patient and is apparent from the above symptoms. The diagnosis of the complications only needs to be made by the doctor. This, however, is always very important, for in all cases of chronic running ears the patient's life is to a certain extent endangered and the one great question that presents itself is: when is it necessary to operate?

By examining the discharge with the aid of the microscope we can honestly tell the patient whether or not he needs an operation.

The bone is the protective media to the tissues and the brain, and so long as this protection holds the patient is protected, but when the bony wall is broken down by suppuration the patient's life is endangered. When a shadow is shown by transillumination and necrosis has taken place, fine particles of bone will be discharged with the pus and can be found with the microscope.

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This bone debris means necrosis and necrosis means that the protection is being destroyed. We never know from the bone debris how much necrosis has taken place or the location thereof; we only know that the protection to the patient is being broken down, that his life is endangered, and that an operation is the only thing that will cure his condition. The pus may open on the outside and run for a long time; it may open into the brain, causing general septic meningitis, brain abscess or other complications; we do not know just how long we may go without an operation, but by this method of examination we can positively say when an operation is justifiable.

Cholesteatoma is diagnosed by gross and microscopic examinations, the finding of epidermal cells which, gives the appearance of fish scales. This condition of cholesteatoma is the only one that a simple mastoid operation will not cure.

Sinus thrombosis is a thrombus of the lateral sinus caused from a broken-down mastoid with a direct infection into the circulation. It is characterized by great prostration, chills, extreme fluctuations in temperature with inflammation of the jugular vein, which may cause soreness and swelling in the side of the neck.

The thrombus finally softens and floats away down the jugular vein to the heart, out through the pulmonary arteries to the lungs, finally lodges and usually causes a fatal pneumonia. In some cases, however, the clot may be carried away in a fluid state, causing pyogenic abscesses in remote parts of the body.

This should be a warning to the doctor to inquire carefully of every case of pneumonia that is seen if the patient has a running ear.

Brain abscess may usually be diagnosed by the pulse, the initial chill, temperature, headache, mental symptoms, disturbance in the movements of co-ordination, inequality of pupils, drowsiness and headache.

The complication of meningitis is usually recognized by rigidity of the muscles, fast, weak, thready pulse, frequent projectile vomiting without nausea, the extreme nervousness, conjected eyes, choked disk and symptoms associated with inflammation of the meninges and spinal cord.

The greatest treatment of chronic suppurative otitis media, like all other diseases, is preventive treatment. We should educate all classes to the importance of calling a physician to treat all earaches. The good that results from a competent district nurse, who realizes the importance of a discharging ear, is unlimited.

The pain associated with acute otitis media can often be relieved instantly by blowing chloroform fumes into the child's ear through a quill; the technic is very simple and the results are usually marvelous. The treatment of the acute stage is less favorable when Nature is made to perforate the drum, having allowed the pus to dam back and infect the mastoid cells and antrum.

There is a great deal of harm done by physicians by the general use of phenol and glycerin. Phenol and glycerin is a wonderful remedy when used at the right place, namely, an acute catarrhal otitis media; but when pus has formed, the first and most important thing to do is to incise the drum membrane and allow free drainage. If phenol and glycerin is used when pus has formed, it only helps prevent Nature from rupturing the drum membrane and allowing free drainage.

There is another very harmful practice which is followed in almost every case of earache and that is the use of sweet oil and laudanum. The usual sweet oil that is bought is invariably rancid and loaded with bacteria. These bacteria are instilled into the ear, which contaminate and infect the middle ear as soon as rupture takes place.

Vaccine therapy has been used, but is not so successful in general. However, it has been very gratifying in some cases, autogenous vaccines being more beneficial.

Douching and preparatory remedies are only mentioned to be condemned. Alcohol and boric acid is beneficial in some cases.

If there is a pond full of frogs do not try to wash them away; do not try to poison them, but simply drain the pond and you will get rid of the frogs. The same holds good in treating this condition. Put a drain through the perforation and keep the outside dressing changed often enough to keep the capillary drainage flowing to the outside and the infecting organisms will be drained away with the pus.

About 50 to 75 per cent of these cases can be cured in this manner.